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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/574,726	05/18/2000	Geoffrey B. Rhoads	60195	9782

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DIGIMARC CORPORATION
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EXAMINER

AGWUMEZIE, CHARLES C

ART UNIT	PAPER NUMBER
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3621

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/04/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	09/574,726	RHOADS, GEOFFREY B.	
	Examiner	Art Unit	
	Charlie C. Agwumezie	3621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14, 26-29 and 91-94 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 26-29, and 91-94 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>5/1/03; 5/24/04</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 11, 2007 has been entered.

Status of Claims

2. Claims 15-25 and 30-90 are cancelled.

Claims 1, 8, 10, 11, and 26 are amended.

Claims 1-14, 26 -29, and 91-94 is pending in this application per request for continued examination filed on January 11, 2007.

Response to Arguments

3. Applicant's arguments with respect to claims 1-14, 26-29, and 91-94 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claims 1 and 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the claims 1 and 8 method step of passing the encoded source material to a destination through at least one intervening steganographic decoder also claims the apparatus which renders the claim indefinite. A single claim which claims both an apparatus and the method steps of using the apparatus is indefinite under 35 U.S.C. 112 second paragraph. *IPXL Holdings v. Amazon.com, Inc.*, 430 F.2d 1377, 1384, 77 USPQ2d 1140, 1145 (Fed. Cir. 2005); *Ex parte Lyell*, 17 USPQ2d 1548 (Bd. Pat. App. & Inter. 1990). **MPEP 2173.05(p)**

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 6-9, 11-14, 26, 28, and 91-92, and 94, are rejected under 35

U.S.C. 102(e) as being anticipated by Daniele U.S. Patent No. 5,444,779.

As per **claim 1**, Daniele discloses a method of distributing digital source material comprising:

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passing the encoded source material to a destination through at least one intervening steganographic decoder, the encoded sources material comprising plural-bit auxiliary data steganographically embedded in the digital sources material, the digital sources material including visual or audio signals that are perceptible when the output from the device, and the visual or audio signals including imperceptible modifications to perceptible parts of the visual or audio signals to embed the plural bit auxiliary data in the perceptible parts in a manner that is imperceptible to a user (fig. 2 and 7; col. 4, lines 1-20; col. 6, lines 40-67; col. 7, lines 1-25; col. 8, lines 40-55; see claim 27; ...two-dimensional code...could be placed as a background behind the text of document...
...glyph code is not readily discernible (visible) to a person attempting to make unauthorized copy...);

at said intervening steganographic decoder, detecting encoded source material transmitted thereby (fig. 2 and 7; col. 4, lines 1-20; col. 6, lines 40-67; col. 7, lines 1-24); and

crediting a payment in response to said detection of the encoded source material, in accordance with the plural-bit auxiliary data steganographically conveyed by the encoded source material (fig. 2 and 7; col. 12, lines 27-45; col.8, lines 40-55).

As per **claim 2**, Daniele further discloses the method which includes decoding plural-bit auxiliary data only from source material that has first been tested to indicate the likely presence of such auxiliary data therein (Col. 13, lines 55- col. 14, line 5).

As per **claim 3**, Daniele further discloses the method which includes testing source material by reference to an encoding attribute that is supplemental to said encoded plural-bit auxiliary data (col. 14, lines 10-25).

As per **claim 4**, Daniele further discloses the method in which said attribute is the presence of a characteristic signature signal conveyed by said source material (col. 5, lines 7-20; col. 14, lines 10-25).

As per **claim 6**, Daniele further discloses the method in which said transmitting includes distributing through a network of interconnected computers (see figs. 2 and 7).

As per **claim 7**, Daniele further discloses the method of reporting said detection to a location remote from detection (figs. 2 and 7); and crediting royalties based on detection (col. 3, lines 22-47; col. 4, lines 61-col. 5, line 20).

As per **claim 8**, Daniele discloses a method comprising:
presenting audio source material to a consumer, the material being encoded steganographically to convey plural-bit auxiliary data the audio source material including an audio signal that is audible when output from the device, the audio signal including modifications to embed the plural-bit auxiliary data that are imperceptible to the consumer (fig. 2 and 7; col. 1, lines 60-67; col. 7, lines 1-25; "...type of work prose, poetry or music..."; col. 6, lines 39-67; glyph... can be used to identify the copying of

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specific lines... as in the reproduction of valuable poetry, plays or music, ...glyph code is not readily discernible (visible) to a person attempting to make unauthorized copy...);

decoding the audio source material that is presented to the consumer to decode the auxiliary data therefrom (figs. 2 and 7; col. 8, lines 22-40); and

using the plural-bit auxiliary data to retrieve information about the source material from a remote location (figs. 2 and 7; col. 13, lines 22-25, 55-66).

As per **claim 9**, Daniele further discloses the method that includes:

storing data indicating the audio source material(s) presented to the consumer (col. 13, lines 45-55);

generating a report based on the stored data, indicating the audio source material(s) presented to the consumer (col. 13, lines 45-66).

As per **claim 11**, Daniele discloses a method comprising:

receiving a object steganographically encoded with plural-bit auxiliary data the digital object including perceptible visual or audio signal with imperceptible modifications that have been made to encode the plural-bit auxiliary data in the visual or audio signals of the object (fig. 2; col. 1, lines 10-15; col. 7, lines 1-25; col. 4, lines 1-20);

decoding the plural-bit auxiliary data from the object (col. 6, lines 39-67);

consulting a registry to determine a transaction associated with the object, by reference to said decoded plural-bit auxiliary data (col. 13, lines 55-65); and

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making a payment in accordance with the transaction (fig. 2 and 7; col. 12, lines 27-45; col.8, lines 40-55; col. 9, lines 65 – col. 10 , line 20).

As per **claim 12**, Daniele further discloses the method that includes making said payment through the registry (see figs. 1, 2 and 7).

As per **claim 13**, Daniele further discloses the method in which the object is a work of authorship, and the encoding adds a generally imperceptible level of noise to the object as it is perceived by a consumer thereof (fig. 7; col. 13, lines 55-65).

As per **claim 14**, Daniele further discloses the method in which the registry comprises a database accessible through the internet (fig. 7; col. 9, lines 39-65).

As per **claim 26**, Daniele discloses a method of altering music data to steganographically insert plural bits of watermark data therein, characterized by steganographically inserting at least a first group of said bits for benefit of an end-user of the music data by imperceptibly altering perceptible attributes of the music data, inserting a second group of bits different than the first for benefit of an artist whose music is encoded by said music data, inserting a third group of bits different than the first two for benefit of a distributor of the music data, and storing in a registry accessible to the end user an association between information about the music data and at least a portion of the plural-bits (col. 6, lines 39-67; col. 8, lines 20-40; col. 10, lines 1-20; ...an

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indication of author and publisher or copyright holder may be ascertained once the glyph code is decoded...).

As per **claim 28**, Daniele further discloses the method in which the second group of bits includes bits representing a unique identifier for the music data, permitting machine identification of the data and royalty credit to the artist (col. 10, lines 1-25).

As per **claim 91**, Daniele further discloses the method wherein the payment is credited for entertainment content provided to the user in response to processing at least a portion of the plural-bit data (col. 1, lines 10-15; col. 7, line 25-45).

As per **claim 92**, Daniele further discloses the method wherein the entertainment content is different from the encoded source material and is provided from a location remote from the steganographic decoder (figs. 5 and 6).

As per **claim 94**, Daniele further discloses the method wherein the transaction comprises providing content related to the object to a user, and the payment comprises payment associated with providing the content related to the object to the user (col. 8, lines 20-40; col. 10, lines 1-25)

5. **Claim 5**, is rejected under 35 U.S.C. 103(a) as being unpatentable over Daniele U.S. Patent No. 5,444,779 in view of Mosses U.S. Patent No. 5,473,631.

As per **claim 5**, Daniele failed to explicitly disclose the method in which the signature signal is a repetitive noise burst signal.

Moses discloses the method in which the signature signal is a repetitive noise burst signal (col. 3, lines 40-64; col. 7, lines 32-56).

Accordingly it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the system of Daniele and provide the method in which the signature signal is a repetitive noise burst signal in view of the teachings of Moses et al in order to show alternative method of detecting the data.

6 **Claims 10 and 27, 29 and 93**, are rejected under 35 U.S.C. 103(a) as being unpatentable over Daniele U.S. Patent No. 5,444,779 in view of Hamilton et al U.S. Patent No. 5,249,166.

As per **claim 10**, Daniele failed to explicitly disclose the method which includes detecting the presented audio source material with a microphone, and decoding the auxiliary data from a microphone output signal.

Hamilton et al discloses the method which includes detecting the presented audio source material with a microphone, and decoding the auxiliary data from a microphone output signal (col. 6, lines 37-60).

Accordingly it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the system of Daniele and provide the method

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method which includes detecting the presented audio source material with a microphone, and decoding the auxiliary data from a microphone output signal in view of the teachings of Hamilton et al in order to show alternative method of detecting the data.

As per **Claim 27 and 93**, Daniele shows the method including storing in the registry an association between the first group of bits but does not expressly show an internet address of a web site accessible by end-users of the music data, the registry providing the web site address in response to receiving at least the first group of bits.

However these differences are only found in the nonfunctional descriptive material and are not functionally involved in the steps recited. The detection of the encoding and payment of royalty would be performed the same regardless since the the internet is only a means of transferring the data and/or payment for the copyrighted material. Thus, this descriptive material will not distinguish the claimed invention from prior art in terms of patentability, see *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to transfer the information through the internet by representing the internet address with certain number of bits because such data does not functionally relate to the steps in the method or system claimed and because the subjective interpretation of the data does not patentably distinguish the claimed invention.

As per claim 29, Daniele failed to explicitly disclose the method in which the third group of bits represents usage restrictions to which audio appliances are responsive, thereby driving distribution of additional copies of the music data

Hamilton further discloses the method in which the third group of bits represents usage restrictions to which audio appliances are responsive, thereby driving distribution of additional copies of the music data (col. 6, lines 39-67).

Accordingly it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the system of Daniele and provide the method in which the third group of bits represents usage restrictions to which audio appliances are responsive, thereby driving distribution of additional copies of the music data in view of the teachings of Hamilton et al in order to ensure only authorized user have access to the data.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The reference cited to Singer et al U.S. Patent No. 6,789,115 is a document considered relevant to the claimed invention.

Examiner's Note: Examiner has cited particular columns and line numbers in the references as applied to the claims below for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested that the applicant, in preparing the responses, fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles C. Agwumezie whose number is **(571) 272-6838**. The examiner can normally be reached on Monday – Friday 8:00 am – 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Fischer can be reached on **(571) 272 – 6779**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For


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more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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March 21, 2007



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